

How To ... Extract Shock Surfaces

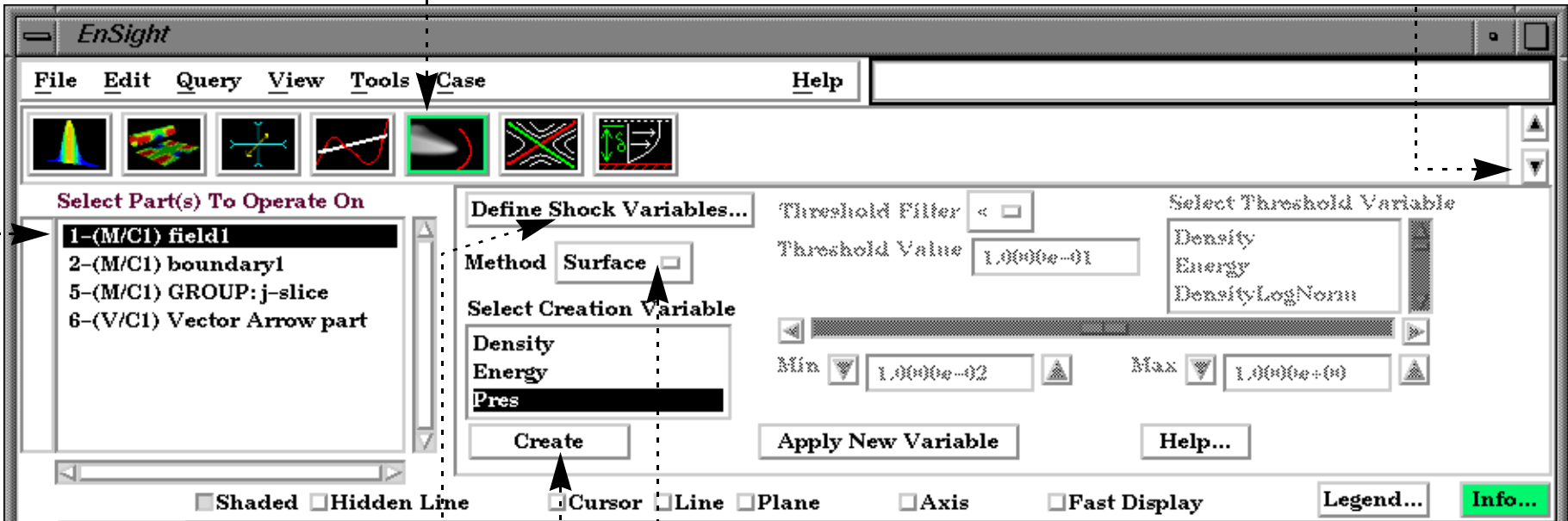


INTRODUCTION

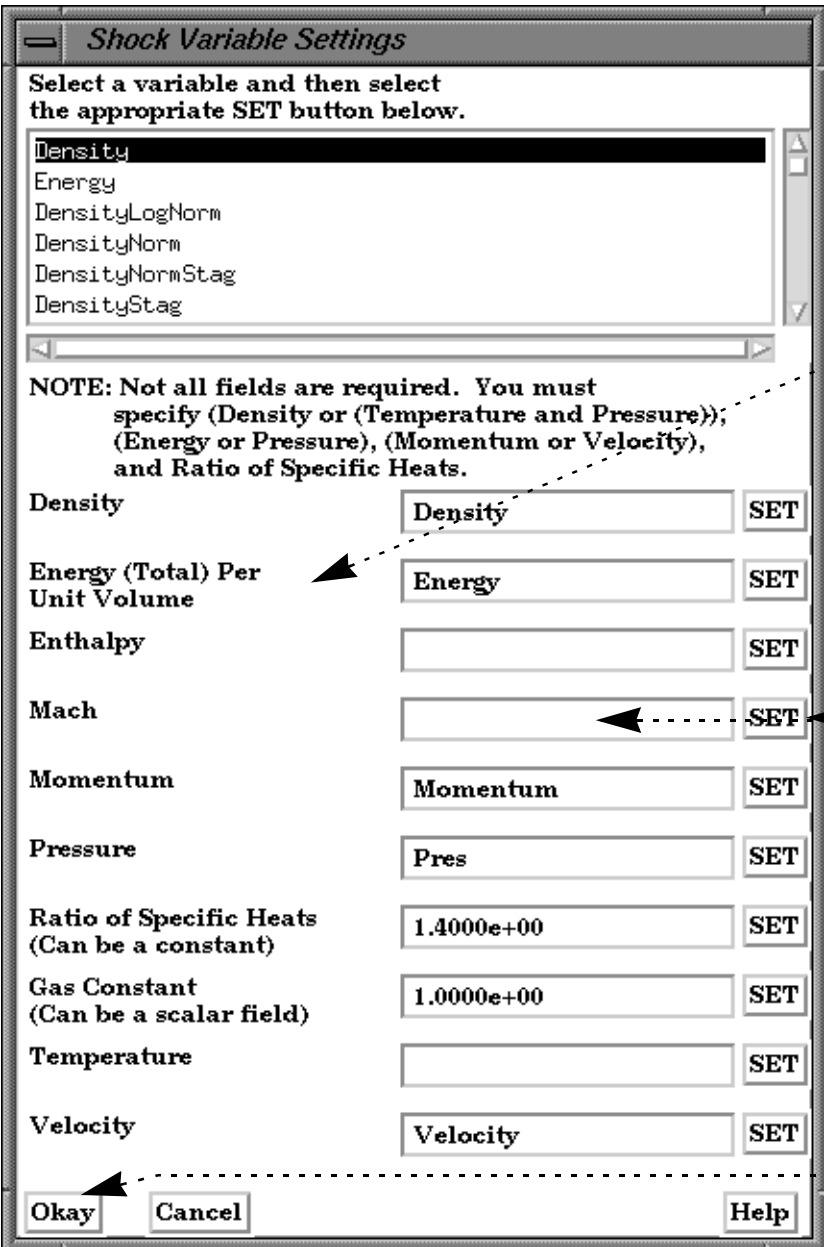
Shock surfaces and regions help visualize shock waves in 3D (trans/super-sonic) flow. For a more complete description, refer to the User Manual section below.

BASIC OPERATION

1. Select the parent part.
2. Click the Shock Surface/Region icon. (Note: This icon is on the second row of icons. Click here if you do not see this icon)



3. Bring up the dialog defining the necessary variables by clicking here.



4. Define either Density or (Temperature and Pressure), (Energy or Pressure), (Momentum or Velocity), and Ratio of Specific Heats.

The variables can be set by either typing them into the fields, or selecting them from the list and clicking the Set button.

5. Click Okay to finish the variable setup.

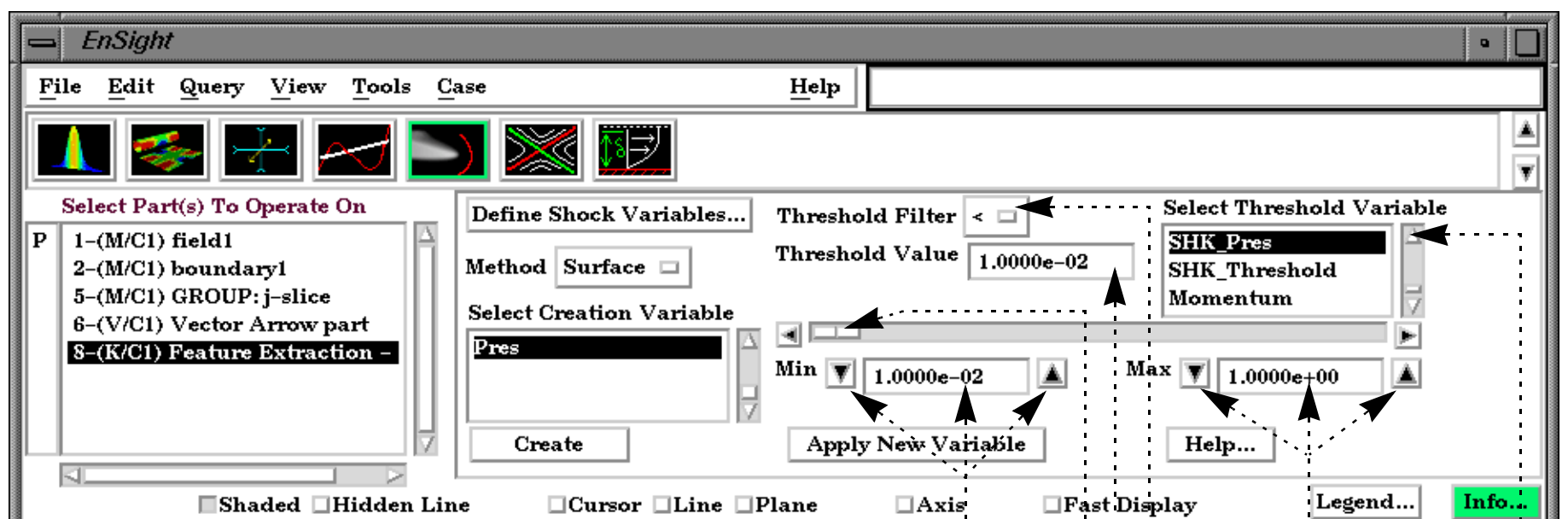
6. Choose Region or Surface.
7. Click Create.





ADVANCED USAGE

The resulting shock can be filtered by any of the threshold variables



1. Select the variable to filter by.
2. Set the Threshold filter to remove the portion of the shock surface or region that is greater or less than the specified threshold value.
3. Enter a threshold value
- or -
3. Slide the slider to a new threshold value
4. The shock is usually defined in a very narrow band, so the slider min/max values may need to be adjusted by either entering new values in the min/max fields, or clicking on the up/down buttons to change by an order of magnitude.

OTHER NOTES

See [Other Notes](#) in the Shock Surface/Region Create/Update section of the User Manual for options on how to pre-filter flow field regions, and/or post-filter shock regions via a specified mach number. Also to apply the transient correction term for moving shocks when using the shock Region method.

SEE ALSO

User Manual: [Shock Surface/Region Create/Update](#)